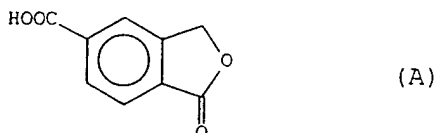
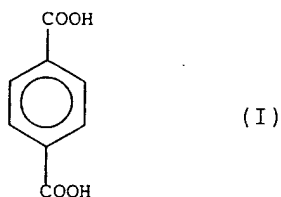


CLAIMS

1. A process for the preparation of 5-carboxyphthalide of formula A



which comprises adding formaldehyde and terephthalic acid of formula I



to fuming sulfuric acid containing at least 20% of  $\text{SO}_3$ , heating the mixture at  $120-145^\circ\text{C}$  and isolating the 5-carboxyphthalide thus obtained.

2. A process according to claim 1, in which formaldehyde is used in form of its precursor 1,3,5-trioxane of formula II



3. A process according to claim 1, in which formaldehyde is used in form of its precursor paraformaldehyde.

4. A process according to claim 2, in which the 1,3,5-trioxane of formula II is used in an amount corresponding to 2.5-3.2 mol of formaldehyde/mol of the starting terephthalic acid.

5. A process according to claim 4, in which said 1,3,5-trioxane is added at a temperature of  $30-35^\circ\text{C}$ .

6. A process according to claim 1, in which the fuming sulfuric acid contains 22-33% of  $\text{SO}_3$ .

7. A process according to claim 6, in which the fuming sulfuric acid is used in an amount of 3-6 litres/Kg of terephthalic acid.

8. A process according to claim 7, in which fuming sulfuric acid is used in an amount of about 3 litres/Kg of terephthalic acid.

9. A process according to claim 1, in which 5-carboxyphthalide is isolated by neutralization of the reaction mixture with a base.

10. A process according to claim 1, in which 5-carboxyphthalide is isolated by diluting the reaction mixture with glacial acetic acid, then adding water and neutralizing with a base.

5 11. A process according to claim 9 or 10, in which said base is an alkaline metal base.

12. A process according to claim 11, in which said alkaline metal base is sodium hydroxide, carbonate or bicarbonate.

10 13. A process according to claim 1, in which, at the end of the reaction, the 5-carboxyphthalide is isolated by the formation of a solution containing a salt thereof which is neutralized with an acid.

14. A process according to claim 13, in which said salt is the sodium salt.

15 15. A process according to claim 13, in which the salt is formed by adding the base to a pH of about 8.

16. A process according to claim 13, in which said acid is hydrochloric acid.

17. A process according to claim 1, in which 5-carboxyphthalide is isolated by treatment of the reaction mixture with water.

20 18. A process according to claim 17, in which the addition of water is made at 0-5°C and the exothermia is controlled by keeping the temperature at about 20-25°C.

19. A process according to claim 1, in which the mixture is heated at 130-135°C.

25 20. A process according to claim 1, in which formaldehyde is added to fuming sulfuric acid after the addition of terephthalic acid.

21. A process for the synthesis of citalopram, in which a process for the synthesis of 5-carboxyphthalide according to claim 1 is contained.